SYMBOLOGY CONFIGURATION MANAGEMENT CHANGE PROPOSAL FORM			
CHANGE PROPOSAL NUMBER		**MIL98-04A**	
ORIGINATOR	**SPONSOR**	**DATE RECEIVED**	**DATE OF ACTION**
PM FATDS	**ARMY**	**3 FEB 1999**	**25 MAR 1999**
CHANGE PROPOSAL TITLE			
ADD NEW SYMBOL, SYSTEM RANGE FANS			
SUGGESTED CHANGE			

The Fire Support community has an Urgent requirement to add a new symbol to MIL-STD-2525B.

1. The purpose of the Range Fan symbol is to graphically display Fire Support weapon and Target Acquisition systems effective ranges to commanders in the Common Operational Picture (COP)/Common Tactical Picture (CTP).

2. Recommend adding to hierarchy item 2.X.4, Fire Support, under the "Areas" hierarchy, 2.X.4.3, figure B-17, and table B-IV.

Justification for Urgency: Army Battle Command System (ABCS) is made up of six primary (MCS, AFATDS, CSSCS, AMDWS, ASAS and GCCS-A) and a number of extended systems. ABCS version 6.0/6.1 is a go-to-war software. The ABCS is required to be a level 6 DII COE compliant, which includes use of Graphical Situation Display (GSD). GSD with the MIL-STD-2525B capability will be available in DII COE version 4.0. It is anticipated that ABCS 6.0/6.1 will integrate DII COE 4.0. The major requirement for Fire Support is to provide ABCS targets and Range Fan graphical information, which support the commander's operational decisions. If MIL-STD-2525B is not implemented in DII COE 4.0 software release, then Fire Support will not be able to provide a critical decision making tool to commanders via the COP/CTP. ABCS 6.0 software development will be completed by Dec 99 in support of interoperability testing and the user's training requirements in order to meet First Digitized Division (FDD) fielding requirements.

Overview: Currently, the standard does not contain symbols depicting weapons and/or target acquisition systems Range Fans. The purpose of the Range Fan symbols is to graphically display to commanders and operators the operationally effective distances of fire support and target acquisition assets available. Incorporation into MIL-STD-2525B, which will be used in GSD, will allow the symbols to be transmitted/received by all battlefield systems. Range Fans have been designated a critical symbol required in the COP to be shared across the battlefield. The development of the COP/CTP is required of all ABCS participating in the First Digitized Division. AFATDS is the producer of Range Fans for the COP/CTP. AFATDS will retain this capability for fielding throughout the Army and USMC.

Operational Description: In general, a Range Fan is used to display the range (area

coverage) of a weapon or target acquisition system. A minimum of four (4) data parameters (unit location, orientation, minimum and maximum range) is required to display a Range Fan. A minimum of six (6) data parameters (unit location, orientation, left and right limits (required to display a sector), minimum and maximum ranges) are required to display a sector Range Fan. Additional minimum and maximum ranges, and left and right limits may be entered as required. The minimum information required to interoperate with another system is defined below.

IMPLEMENTATION:

Description: **Fire Support, Area, Weapon/Target Acquisition System Range Fans, Circular**

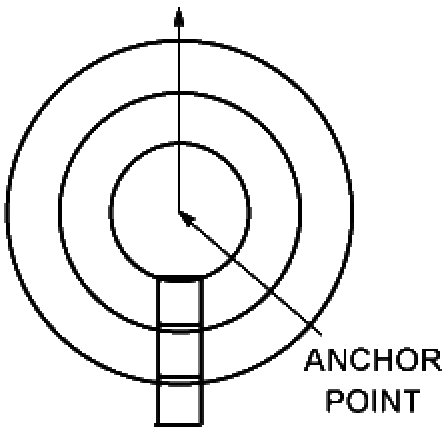
Parameters:

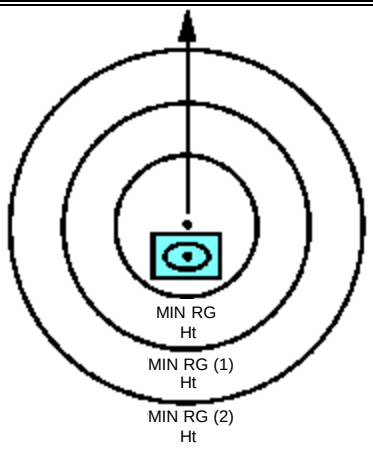
1. Anchor Points. This graphic requires one anchor point that defines an object at a dynamic grid location. This coordinate, which pinpoints the current physical location of a specific unit, weapon or acquisition system, may change with the movement of the object. The symbol for that object is located at the anchor point.

2. Size/Shape. Shapes are concentric circles. Size is defined by the minimum and maximum ranges (as many as required) measured from the anchor point.

3. Orientation. The center point is typically centered over the known location of a weapon or target acquisition system. The orientation of the Circular Range Fan is the direction of engagement. The orientation may change as the object moves or changes.

Fixed/Dynamic: Dynamic, to support requirements that the fan box be transferable between true and relative locations.
Hierarchy: 2.X.4.3.11.1
Symbol ID: G*FPAXC
Label: Text boxes will be used to label the minimum and maximum ranges and height of the range fan.





Description:**Fire Support, Area, Weapon/Target Acquisition System Range Fans, Sector**

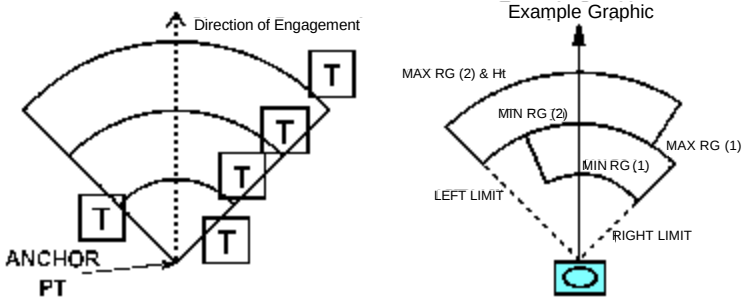
Parameters:

1. Anchor Points. This graphic requires one anchor point that defines an object at a dynamic grid location. This coordinate, which pinpoints the current physical location of a specific unit, weapon or acquisition system, may change with the movement of the object. The symbol for that object is located at the anchor point.

2. Size/Shape. Determined from the anchor point with a single azimuth that denotes Sector Center. The maximum left and right limits of the sector are measured from the sector centerline. Multiple ranges and/or maximum left and right limits of the sector, as well as height, may be entered, as required, to define the sector.

3. Orientation. The center point is typically centered over the known location of a weapon or target acquisition system. The orientation may change as the object moves or changes.

Fixed/Dynamic: Dynamic, to support requirements that the fan box be transferable between true and relative locations.
Hierarchy: 2.X.4.3.11.2
Symbol ID: G*FPAXS
Label: Text boxes will be used to label the minimum and maximum ranges and maximum left and right sector limits and height.



JIEO ANALYSIS

OVERVIEW:
The proposed CP fulfills a need expressed by the Army for a standard Range Fan Symbol.

The following changes must be made to the standard to incorporate the proposed changes:
1.Revise table B-III, C2 Symbology: Military Operations symbol ID codes, to include the necessary information for the System Range Fan symbol.
2.Revise figure B-17, Fire Support, to include the System Range Fan symbols.
3.Revise table B-IV, C2 Symbology: Military Operations set, to include a generic and example symbol for both 2.X.4.3.11.1 and 2.X.4.3.11.2.

POTENTIAL CONFLICTS WITH EXISTING SYMBOLOGY:
The System Range Fan symbols do not conflict with any existing symbols within MIL-STD-2525B.

CONFORMANCE TO SYMBOL GUIDELINES:
The proposed System Range Fan symbols follows the rules concerning composition, construction, display, and transmission previously set forth in the standard.

ADEQUACY AND IMPACT ON OTHER PROGRAMS:
None known.

C/S/A COMMENTS

The Navy did not concur with the SSMC majority vote to approve this Change Proposal.

ACTION TAKEN

By a majority electronic vote, the SSMC approved this CP for addition to MIL-STD-2525B on 25 MAR 1999. It will be added to the MIL-STD-2525B either through a future change document or revision to the entire standard.